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ABSTRACT

Students who eventually drop out of school have a long-term disadvantage in becoming productive citizens. The traditionally structured U.S. high school system does not facilitate high school education for at-risk students. Some schools, however, do organize themselves around the needs of the at-risk student population. This study analyzed the impact of a 6-month dropout prevention program in a nontraditional school of a large urban school district. Participants were students enrolled in the alternative high school program. A treatment and a comparison group were randomly assigned for participation in the study. First, the overall pattern of school attendance was analyzed. Second, a random sample of both treatment and comparison group members was assessed in terms of changes on attendance percent rates. Third, a comparison in terms of students dropping out was conducted. Finally, a cost-effectiveness analysis was utilized to examine the data. Findings support the dropout prevention intervention. Implications for practice and future research are discussed. (Contains 15 references.) (SM)

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Running head: Facing the Challenges of At-Risk Students

ED 463 364

Facing the Challenges of At-Risk Students in Urban School Districts: The Impact of an Attendance and Dropout Prevention Program in a Non-Traditional School

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1

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Abstract

Students who eventually dropout of school have a long-term disadvantage in becoming productive citizens. The traditionally structured American high school system does not facilitate high school education for at-risk students. Some schools, however, do organize themselves around the needs of the at-risk student population. This study analyzed the impact of a six-month dropout prevention program in a non-traditional school of a large urban school district. Participants were students enrolled in the alternative high school program (N = 206). A treatment (n = 103) and a comparison (n = 103) group were randomly assigned for participation in this study. First, the overall pattern of school attendance was analyzed. Second, a random sample of both treatment and comparison group was assessed in terms of changes on attendance percent rates. Third, a comparison in terms of students dropping out was conducted. Finally, a cost-effectiveness analysis was utilized to examine the data. Findings support the dropout program intervention. Implications for practice and future research are discussed.

Keywords: At-risk students, alternative schools, attendance, dropout, cost-effectiveness

Facing the Challenges of At-Risk Students in Urban School Districts: The Impact of an Attendance and Dropout Prevention Program in a Non-Traditional School

Nationwide, the high school dropout rates are scary figures that point out a problem in our educational system. The National Center for Educational Statistics (1997) reported that high school dropout rates have risen for the past years. Many theories exist to explain this complex phenomenon. Researchers have identified frameworks for discussing general categories associated with the identification of at-risk students and their influence in dropping out. For example, LeCompte and Dworkin (1991) report the existence of (a) pupil-related factors, (b) school-related factors, (c) constructed factors, and (d) macro-system factors. These researchers argue that the experiences and characteristics that students bring to school include economic, familial, and socio-cultural pupil-related factors. School-related factors vary across schools, educational staff, and central office administrators. Constructed factors include both pupil- and school-associated categories that influence the attitudes and perceptions that students have about schooling. The macro-system factors are related to the social, political, and economic contexts in which school systems are embedded.

Another conceptualization, alienation theory, states that some students fail to connect with the goals of the schools, develop a detachment from the schooling process, and eventually leave high school (Altenbaugh, Engel, & Martin, 1995). This theory argues that students consciously reject the norms and values of schools and dislike the demands placed on them by the mainstream culture. Alienated students often have feelings of inadequacy and develop poor attitudes and relationships toward peers, authority, responsibility, learning, and achievement.

From a more practical perspective, Roderick (1993) identified reasons given for dropping out of school. Both males and females groups reported similar reasons, namely "did not like school" and "poor grades." Males emphasized the attractiveness of going to work and females gave emphasis to the appeal of getting married. The general findings of Roderick study were that school, economic, pregnancy, and marriage factors were the major reasons related to dropping out from the school.

Another well-known reason affecting dropping out from schools, is that the traditional organizational structures of high schools across the nation do not always satisfy the needs of our students, especially in the urban areas (Wilensky & Kline, 1989). Students often attend large high schools that prevent them from receiving the attention they need from school personnel and their peers. Individuals are not able to identify with the larger social systems, because they cannot exercise their own powers or express their own personality. Addressing the challenge of meeting the urban students needs, alternative strategies have emerged in the arena of public education. The American educational system is becoming more perceptive of our students educational needs.

> Our educational system is failing to meet the real needs of society. Our schools constitute the most traditional, conservative, rigid, bureaucratic institution of our time. It is the institution most resistant to change. While these statements are accurate, they do not describe the whole situation. There are new developments: alternative schools, creative classrooms, opportunities for independent study, all kinds of adventurous enterprises being carried by dedicated teachers, administrators, and parents. (Rogers & Freiberg, 1994, xxi).

Background Information about the District, School, and Program Intervention

The district were the alternative school under examination locates is the 26th largest school district in the United States. The school district serves more than 96,000 students from preschool to grade 12. The school district has a vision for long-term student achievement. The vision was designed to assure that every student will acquire the fundamental academic and life skills necessary for success in the classroom and workplace. The school system vision commits the school system to educate each student to the highest academic standards.

The alternative high school is committed to providing successful completion of high school for all students unable to graduate from the traditional school setting. The school facilitates student learning through open entry/open exit, self-paced, and individualized curriculum. As a result, the school enhances students' self-esteem and facilitates students to become productive and employable members of our society.

The school district and the high school are deeply concerned about the problem of dropouts at the high school level. Every year, numerous students who attend this high school, leave before completing the requirements for promotion or graduation. Accordingly, an alternative program was formulated to reduce dropouts. In order to reduce this number, the District provided funding for the alternative high school to hire three additional staff to work on improving student attendance and decreasing the number of dropouts. Three personnel were chosen based on their qualifications, initiative and interest in dealing with the high school's special student population.

After attending an orientation session on the policies and procedures of the high school, the staff was assigned to observe in all classrooms at all sites. They met with all

teachers at the sites and jointly determined which students were the most serious/critical of not finishing. These students then became the target population. At the completion of the observation period, a meeting was held and strategies on dealing with students' attendance were discussed. The following activities are some of the approaches that will be utilized for the experimental group. Staff will consistently: (a) call every student when they are absent; (b) contact the parent/guardian of every 16-17 year old student; (c) make personal contact with students when they are in attendance; and, (d) assist students who have personal/family problems if the problems are the roots of the attendance problems.

Each attendance worker had approximately 30-35 students as their caseload. The attendance worker took over the case after the classroom teacher has contacted, or attempted to contact the student, and the student is still exhibiting problems with his/her attendance. Complete documentation was maintained on all students in the experimental group. The coordinator of the dropout program and the evaluator of the program met biweekly with the attendance workers to discuss progress of the students and to deal with any problems/issues that might arise.

Students selected for the experimental group, in addition to having attendance problems, were chosen based on the following criteria: (a) students that were identified as "Stephens;" (b) students whose Test of Adult Basic Education (TABE) scores in reading and/or math were between 6.0 – 8.5; and, (c) students who had 13+ credits. On the basis of past experience with former dropouts, the high school concluded that students with the following non-cognitive characteristic are dropouts prone: those students who have been characterized by poor attendance, and especially, unexcused absences. This one characteristic or any combination of this with other personal events (e.g., new job or

parenting) seems to provide an early warning of dropout-proneness on the basis of past records.

The high school randomly assigned from a pool of students who are characterized as dropout-prone into two groups. The first group was a control group that did not receive an intervention (n = 103). The second group was the focus of the program intervention to reduce dropouts (n = 103). On the basis of a semester intervention, data was collected on dropouts for both groups. The key variables for conducting the pair-matched procedure include TABE scores. All school locations were integrated in the analysis. In addition, students were matched on additional social and demographic variables such as race and gender.

Evaluation Objectives and Questions

The evaluation objectives were to conduct an outcome evaluation of the program. However, the evaluator participated in multiple meetings to understand the program dynamics and to provide timely quality assurance guidance to the program. Outcome evaluation helped to assess the impact of the program on participants. The overarching evaluation questions that guided the study were the following: (a) What are the characteristics and number of the students participating in the program? (b) What is the overall impact of the program on students' attendance? (c) What is the impact of the program in terms of attendance? (d) What is the impact of the program in terms of dropouts/retention? (e) What is the cost-efficiency analysis of the program?

Evaluation Model

The Management-Oriented Evaluation Approach

Daniel Stufflebeam (1983; Stufflebeam & Shinkfield, 1985) is one of the most reputed leaders on the management-oriented approach. According to Stufflebeam, the evaluation is a process of delineating, obtaining, and providing useful information for judging decision alternatives. The Context, Input, Process, and Product (CIPP) Evaluation has different objectives, methods, and relation to decision making in the change process depending on the type of evaluation emphasis. The district and high school education leaders have to satisfy their informational needs to make decisions. "The management-oriented rationale is that the evaluative information is an essential part of good decision-making and that the evaluator can be most effective by serving administrators, policy makers, boards, practitioners, and others who need good evaluative information." (Worthen et al., 1997, p. 97).

The UCLA Evaluation Model was present in the interim and final evaluation reporting. The reason is that, although recommendations were given to the project coordinator, the evaluator only "illuminates" the situation with valuable and timely evaluation information to the decision makers (Klein, Fenstermacher, and Alkin, 1971). Alkin (1991) stated that evaluation is a process of gathering information, the information collected in an evaluation will be use mainly to make decisions about alternative courses of action, and different kinds of decisions require different kinds of evaluation procedures. Outcome evaluation provides information that might be later used to make improvement decisions regarding the program.

The evaluator utilized the technique of participant observation to check the implementation and progress of the program. As mentioned previously, a total of three Instructors III were recruited, objectives of the program established, intervention strategies put in place, and biweekly meetings held. The evaluator did not find major discrepancies between planned and actual operation of the dropout program. Comments like the following can synthesize the Instructors III perspectives toward the intervention:

> One of the best aspects of the project is being in a position that allows me to build a one-on-one relationship with (but not limited to) my target students. Because of this foundation, many students will share with me the obstacles that may hinder their goal towards graduating. If I am unable to assist in removing those barriers, I will continue to offer words of encouragement and affirmation. This is an essential feature in the program that makes it successful.

Method

Participants

The total number of participants was 206 students. The treatment group (n = 103) and comparison group (n = 103) were similar in the test scores as measured by the Test of Adult Basic Education (TABE) both in central tendency (i.e., mean scores) and dispersion (i.e., standard deviation) measures.

Race and gender were used as matching variables. Overall, there were no significant differences between both groups in terms of racial and gender composition. Table 1 shows the profile of the students participating in both the treatment and the comparison group. Categorical variables are presented in counts and percents and continuous variables are presented in means and standard deviations.

Table 1

Profile of the Students Participating in the Evaluation (N = 206)

Group	n	%	Mean	SD
Treatment Group				
Race				
Black	52	50%		
White	51	50%		
Gender				
Female	45	44%		
Male	58	56%		
TABE				
Reading			10.5	2.0
Math			8.9	2.0
Comparison Group				
Race				
Black	50	49%		
White	52	50%		
Hispanic	1	1%		
Gender				
Female	54	52%		
Male	49	48%		
TABE				
Reading			10.3	2.1
Math			8.9	2.1

Data Collection

The data collected include academic and non-academic measures. Academic measures include students' test results and other academic information. Non-academic measures include mainly attendance and dropout data. The information was collected at the beginning, during, and at the end of the program implementation. The initial data collection provided baseline information that functioned as a reflexive comparison group as well as a true comparison group.

The project director and the evaluator used different data sources to obtain information. First, the computerized database of JCHS and the District provided individual student data, including identification number, race, gender, testing scores, and attendance related measurements. Second, a program activity log was kept to have all the services documented. Finally, the project coordinator collected "success stories" to share with the school staff and parents.

Data Analysis

The project coordinator works with the program evaluator to collect, analyze, and disseminate the information on program operations and outcomes. The evaluation design is pre- and post-measurement using reflexive and comparison controls (Rossi & Freeman, 1993). The data analysis included descriptive statistics (Gall, Borg, & Gall, 1996) and independent-samples t-test (Hinkle, Wiersma, & Jurs, 1994). In addition, a cost-efficiency analysis was performed to estimate the monetary implications of the dropout program at JCHS. The evaluation results were converted to a power point presentation and used to promote support for the program in the school and community.

Results

Research Question 1:

What is the overall impact of the program in terms of attendance?

Our assumption was that the school's overall attendance pattern would change with the intervention. In fact, on the whole, school attendance pattern changed in a positive fashion after the program was implemented on the fourth pupil month of the current school year. As presented in Table 4, the difference between attendance percent rates when comparing last year with the current year is evident. The average attendance rate was 68.8 in the 1999-2000 school year for the first three pupil months; in the same period, the average attendance rate of the current school year first three pupil months was 63.5. The difference was 5.3. Nevertheless, after four pupil months of intervention, the attendance gap was basically closed to .8 (67.9 for the 1999-2000 school year versus 67.1 for the 2000-2001 school year).

Table 4

Comparison of the Attendance Data for the School across Seven Pupil Months for the 1999-2000 and 2000-2001 School Year

Year	Pm1	Pm2	Pm3	M	Pm4	Pm5	Pm6	Pm7	M
1999-2000	70.1	65.9	70.3	68.8	67.5	67.3	70.5	66.4	67.9
2000-2001	51.1	70.4	68.9	63.5	68.7	66.4	70.2	63.1	67.1

Note: Pm = pupil month.

Research Question 2:

What is the impact of the program on participating students' attendance?

Attendance was analyzed in this program evaluation to assess the impact of the program on this important type of non-academic measure. It was expected to have a higher rate of attendance in the treatment group. First, in this part of the evaluation, a random number of students participating in the program were selected for both the treatment (n = 24) and comparison group (n = 24) from the total pool of participants (N = 206). Second, basic descriptive statistics were performed to assess the measures of central tendency and dispersion. As shown in Table 5, when comparing the students, the treatment group showed a higher average attendance percent than the comparison group. Finally, to examine statistically significant differences, an independent-samples t-test was conducted having the attendance percent rates as the dependent measure. As presented in Table 5, the difference between the treatment and the comparison group was statistically significant at the .01 level.

Table 5

Comparison of Treatment and Comparison Group on Attendance (N = 48)

Group	Mean	SD	Range	t-value
Treatment (n = 24)	90.2	16.3	35.2-100	2.33*
Comparison (n = 24)	78.6	18.4	49.5-100	

$p < .05$

Research Question 3:

What is the impact on the students in term of dropouts/retention?

Table 6 displays the findings of this study in terms of impact to the at-risk students participating in the program. The treatment or target group has more active students, more graduates, and fewer dropouts than the control group. In fact, on the main focus of this intervention, the program "lost" only about 24% of the participants; however, in comparison to the treatment group, close to the double of the control group dropped out from school (43%).

A total of 67% of the participants were either active or transferred to another public school in the treatment group; however, in the control group, only 53% were either active or transferred to another school. Finally, the treatment group doubled the number of high school graduates when compared to the control group (9 and 4, respectively).

Table 6

Results for Target and Control Group (N = 206)

Group	Total	Active	Transferred	Graduated	Dropout
Target Group	103	64	5	9	25
Control Group	103	54	1	4	44

Research Question 4:

What is the cost-efficiency of the program?

Following the recommendations of Levin (1983), a cost-effectiveness analysis was conducted. The results of the cost-effectiveness analysis displayed on Table 5 shows that it costs about $846.00 per student for a six month period to prevent the at-risk student from dropping out. As presented in Table 7, the number of dropout students was definitely much lower in the intervention group than in the control. Given that in the district and state under examination the state supports the youth education with $8.00 per day, the intervention generated for the school a total gain of $112.00 per day for providing the education to these at-risk students. The aforementioned analysis is the result of multiplying the number of active and transferred students in both treatment and control group (i.e., 69 and 55, respectively) by $8.00 and then subtracting to find the difference or gain (i.e., $552.00 and $440.00, respectively).

Table 7

Results and Cost of Reducing Dropouts for Control Group and Alternative Program

Group	Total Cost	Number of Dropouts	Dropouts Prevented	Cost per Prevented Dropout
Treatment Group	$66,000	25	78	$846
Control Group	---------	44	59	----------

Discussion

This study examined a dropout intervention program developed in an alternative school located in a large urban school district. Particular emphasis was given to determining the impact on attendance measures and on the cost-effectiveness of the dropout program. The results of this study support the hypotheses that having a program of this nature does (a) improve the general school attendance pattern, (b) improves the attendance rates and, more important, (c) reduces the number of dropouts from high school.

First, this study showed that the attendance pattern changed with the implementation of this program. The gap of attendance was almost closed during the months of the dropout intervention. Probably, this is an example of the Hawthorne effect in educational research. A Hawthorne effect can be defined as an observed change in research participants' behavior based on their awareness of participating in an experiment or their response to receiving special attention. The alternative school had three Instructors III with a hard work ethic and a highly visible personality.

Second, the attendance percent rate was higher in the treatment group than in the comparison group. In fact, the dissimilarity reached statistically significant difference at the .05 level. This is, in most part, due to the consistency of services provided by the Instructors III.

Next, but not least, it is important to mention that the findings were impressive in terms of dropout/retention figures. As expected, the treatment group outperformed the comparison group in dropout and retention measures. On one hand, only two out of ten dropout from school in the treatment group; however, four out of ten dropout from school

in the comparison group. On the other hand, almost eight out of ten were active, transferred, or graduated in the treatment group; only six out of ten in the same conditions in the comparison group. The findings of the cost-efficiency analysis showed that it costs $846 to retain or prevent at-risk students from dropping out. School administrators will establish the value of the intervention from an economic perspective by using the aforementioned figure as a reference.

Limitations and Recommendations for Future Research

This study, as any research investigation, has multiple limitations. First, the intervention specialists, although prioritize the services to the target group, did not totally exclude the control group or any student having attendance problems at JCHS. As in must current educational research, social justice issues take prominence over research designs and threats to internal validity. Second, the dropout program was developed for the first time this school year; some levels of trial-and-error were an intrinsic part of the process. Third, many variables usually come into play when a student decides to continue or dropout from an educational program; this study, is an exploratory effort to establish tentative cause-effect relationship without controlling for extraneous variables. Finally, future research may include a longitudinal analysis of dropout students.

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